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Original Articles.

The Food Value of Beer.

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As the prohibitionists are just at present very active, and throughout the length and breadth of the country are attempting to coerce legislation favorable to their fanatical demands, it becomes of interest to examine whether or not their stock arguments, that alcoholic liquors are at the best only stimulants devoid of all nutritious principles, are founded on facts. If all or any one alcoholic liquor can be proved to be in any degree nutritious the prohibition question becomes an important problem of political economy. Before discussing this question it is necessary to determine ***what is*** food and ***what*** is the ***nature*** of nutrition.

All substances necessary for, or capable of, maintaining the activities of living organisms are food to those organisms. Thus the plant feeds upon carbonic acid, water, ammonia and various other mineral or inorganic compounds, while both inorganic and organic substances are necessary to the life of the animal. Of inorganic foods required by animals the chief are Oxygen, chloride of sodium (common salt) and phosphates of lime and magnesia. Organic substances are either nitrogenous or non-nitrogenous. The nitrogenous comprise albumen, caseine, fibrine, the non-nitrogenous

include starch, sugar, gums, fats, etc. Liebig in his theory of nutrition regards only the nitrogenous materials as nutriment and reasons somewhat as follows: muscular tissue is nitrogenous, so too, blood from which tissue is built up. Hence only nitrogenous substances can act as nutriment, for nothing can be more certain than that the food is transformed into blood which forms tissue to replace that which is constantly being disintegrated as the muscles perform work; since it would be utterly irrational to suppose that appetite and the necessity of taking food have no other purpose than the production of urea, uric acid, etc., substances which are of no use to the system and are voided as waste. To the large class of non-nitrogenous substances which form the largest percentage of the food of most animals Liebig assigns the subordinate office of maintaining respiration and producing animal heat. This theory was long sustained by the high authority of Liebig notwithstanding that he seems never to have attempted to substantiate it by experiment. Most Physiologists still teach it though all the facts, as has repeatedly been proved by most careful experiments, are altogether against it.

The modern school of Chemical Physiologists, guided by the principle of correlation and conservation of energy, take the ground that the animal system is simply an engine for the transformation of the energy stored up in the various articles of food, and as all organic substances when oxidized give out a certain amount of heat energy, representing a definite quantity of mechanical work, they must also be regarded as food in so far as they are capable of digestion and entering into the circulation. The chief results of the complex changes which take place in food in the alimentary tract is to render as much as possible thereof soluble in the blood which carries the food thus rendered soluble into the circulation. In the blood the food is oxidized by the oxygen of the arterial blood producing heat, and as heat is energy, work. This is in brief the modern theory of nutrition. Now let us pass to experimental data to be able to decide between these two theories.

The crucial experiment upon this subject was performed by Profs. Fick and Wislicenus of the University of Zuerich. They in August of 1865, ascended the Faulhorn one of the Swiss Alps, a peak about 2000 meters—about 6,500 feet—high, while they subsisted exclusively upon non-nitrogenous food.

They carefully determined all the nitrogen secreted in the urine, and as it is generally admitted that the nitrogen of the nitrogenous food, whether this is first transformed into tissue or not, passes off almost exclusively in the urine as urea, uric acid, etc , they were enabled to calculate the amount of muscle which must have been consumed, and the amount of work that could be performed by the heat liberated by its oxidation.

They found first, that the quantity of muscle which corresponded to the nitrogen found was utterly inadequate by its oxidation to account for the work performed by them in raising their weight to the height of the Faulhorn and carrying on respiration and circulation of the blood. They found it equivalent to only about one-third notwithstanding that they used far too high a value for the heat of oxidation of muscle as was afterwards shown by Dr. Frankland. Their experiment showed, secondly, that there is no considerable disintegration of muscle during exertion for the nitrogen found in the urine passed during the ascent was less than that found in the urine when living upon a mixed diet. This experiment settles the question for all time that work can be done without any great waste of muscle, and that the source of power lies chiefly in the non-nitrogenous food consumed. Similar experiments have repeatedly been performed by others with the same result. It has further been found that the nitrogen daily secreted in the urine is not only proportional to, but almost exactly equivalent to the nitrogen taken in the daily food, showing that it comes mainly from the food, and there can be no great disintegration of muscle under ordinary conditions of health. For interesting experiments, on this point, the reader is referred to Dr. Vaughan's excellent little work, "Lecture notes on Chemical Physiology and Pathology." From these experiments it follows that Liebig's theory is utterly untenable, and that all substances which can be rendered soluble by the digestive apparatus and enter the circulation have a food value for the production of work in proportion to the amount of heat they generate in their oxidation. The heat of combustion of various articles of food has been determined by Dr. Frankland, and may be found in a paper "On the Source of Muscular Power" published in his "Experimental Researches." Here is also given in substance the paper of Fick and Wislicenus of their Faulhorn experiment above mentioned. From these determinations of Dr. Frankland, we find that the heat of combustion or oxidation is surprisingly low for nitrogenous substances as compared with such non-nitrogenous bodies as starch, sugar, fats, etc. This desparity becomes still greater when the combustion or oxidation takes place in the body for in that case under normal and healthy conditions of the system the nitrogenous bodies are oxidized only to urea which is capable of giving out a considerable quantity of heat by its combustion. This quantity must be subtracted from the heat of combustion of nitrogenous bodies burned in Oxygen. Thus one Gramme, 15,42 grs. of lean of beef produce when oxidized in the body an amount of energy, equal to 604 Meterkilog's,—4366,92 foot pounds —i. e. energy enough to raise one pound 4366,92 feet high. The same quantity of lean veal gives 496 Meterkilog's,—3586,08 ft., pds.;—white of egg 244 Meterkilog's—1619,52 ft., pds.,—The same quantity of the fol-

lowing non-nitrogenous sustances give when consumed in the body:

Oat meal,	1665	Meterkilog's	(12037,95	ft.	pds.)
Ground rice	1591	"	(11502,93	"	")
Bread crumb	910	"	(6579,3	"	")
Butter	3077	"	(22246,71	"	")
Beef fat	3851	"	(27842,73	"	")
Commercial Grape Sugar,	1388	"	(10035,24	"	")

From these few illustrations it may easily be seen that the non-nitrogenous are by far the most valuable and economical food materials. But what then is the need for nitrogenous food says an objector. Under natural, healthy conditions of the system its chief office cannot be to repair wasted tissue, because that waste is small, while under pathological conditions as well as in the period of growth of childhood and youth the building up of new tissue is certainly a very important function of nitrogenous food Some believe that its main office is to act as a nerve stimulant. Yet does it not perform also another office in keeping the digestive system in activity? Nitrogenous foods generally require much more time for digestion than the non-nitrogenous and thus by keeping the digestive mechanism in activity produce the sensation of satiety and prevent the too frequent craving for food, which if satisfied, would over nourish the system.

From what precedes it is easily seen that beer, which is the only alcoholic liquor we propose to take into consideration in this article, must have a certain food value as it contains such non-nitrogenous substances as alcohol, dextrine and grape-sugar. How much, we propose now to determine. The average beer contains from 3 per cent. (Draught), to 4.3 per cent. (Lager) of its weight of alcohol; from .2 per cent, to 1.9 per cent Glucose, and on the average 4.7 per cent Dextrine. English Porter contains about 5.5 per cent, and Scotch Ale as much as 8 per cent of alcohol, the other constituents being about the same as in beer.

A specimen of a Buffalo brewed beer, which is very popular and has the reputation of being one of the best, gave the following:

Specific Gravity at 15 deg. C.—59 deg. F.—	1.0227.
Alcohol	3.11 per cent.
Glucose	.2 per cent.
Dextrine	3.6 per cent.

These percentages are taken with reference to the weight and not the measure. From them we can easily calculate the weight of these in any measure of beer. One Litre. (1.0567 qt.,) measured at 15 deg. C.—59 deg. F.—will weigh 1021.657 Grms. (36 oz.) It contains.

Alcohol,	31.671	Grms.	1.11 oz.
Glucose,	2.043	"	.72 oz.
Dextrine,	36.781	"	1.29 oz.

Now taking the mean value of the heat of combustion of 1 Gramme—(15.42 grs.) of alcohol at 2968.2 Metre Kilog's (21460 ft. pds.) we obtain for the 31.671 Grms. (1.11 oz.) contained in a litre (1.0567 qt.) an amount of energy represented by 94005.68 Metre Kilog's (679661.07 ft. pds.) One Gramme of Commercial Glucose gives, as above stated, 1388 Metre Kilog's (10035.24 ft. pds.) but as the commercial article will contain at least 10 per cent moisture one gramme anhydrous glucose will give 1542 Metre Kilog's (11150 27 ft. pds.) and 2.043 grms.—.72 oz—are equivalent to 3150.3 Metre Kilog's (22776.67 ft. pds.) There seems to be no determination of the heat of combustion of Dextrine, but as it is isomeric with starch which has a higher heat of combustion than glucose, we take it too low rather than too high if we take it the same as for glucose. For 36.780 Grms—(1,29 oz.) we then have 56704.76 Metre Kilog's (409975.41 ft. pds.) Disregarding, then, the value of all other oxidizable substances, as very small and altogether leaving out of view the stimulating or tonic effect of the hop and alcohol, we have a food value per litre (1,0567 qt.) of 153860.74 Metre Kilog's (1112412.14 ft. pds.) or reducing these figures to a quart instead of a litre, we obtain 145605 Metre Kilog's or 1052723 foot pounds, i. e.,the energy in one quart of beer, if all were utilized, is sufficient to raise 1052723 lbs, one foot high.

Let us look at these results in a slightly different manner, and let us determine to what quantities of other food one quart of beer is equivalent for the production of energy. This is easily obtained by dividing the energy produced by one quart of beer, by that produced by unit weight of the various foods with which we wish to compare the beer. In this way we find that one quart of beer is equivalent to 345.035 Grms. (12.2 oz.) of potatoes, to 241.068 Grms. (8.43 oz.) of lean of beef to 160 grms. (5.64 oz.) of bread crumbs, to 596.742 Grms, (21.05 oz.) of white of egg, to 817.443 Grms, (28.76 oz.) of cabbage, and to 547.387 Grms (19.3 oz) or 1.12 pt. of milk.

These figures give a fair measure of the true food value of beer but do not, of course, decide the question of economy which it is not our purpose to enter upon. As some sort of stimulant seems necessary for man and as beer has unquestioned stimulant properties besides its food value, it becomes a far better and cheaper stimulant for the laboring classes than tea or coffee. The figures we have given are deducted from the experiments of noted scientists and thus put an entirely new phase upon the prohibition question.

Beware Gentlemen of the Legislatures of this Country, how you tamper with an important article of diet of the laboring classes! The fanatical cry of prohibitionists, that beer is only a stimulant containing no nourishment, but at best only heat producing substances is as senseless as to

maintain that the energy of the steam engine comes from the slight oxidation of the grate bars of the boiler, while the fuel only produces and supplies the heat which is lost by radiation.

PUERPERAL ECLAMPSIA.

BY CHAS. F. HOWARD, M.D.

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"Eclampsia Puerperalis" says Braun, "is an acute affection of the motor function of the nervous system, characterized by loss of consciousness, and sensibility, by tonic and clonic spasms, and occurs only as an accessory phenomenon of another disease." Many eminent writers of recent date disagree with the above as regards the statement in the last clause; but Braun no doubt refers particularly to acute Bright's Disease, which has always been regarded as a great cause of this terrible malady.

Sir J. Simpson, while he has no doubt but that Albuminuria is one of the causes, yet the following quotation from his writings on the subject, shows that he is unprejudiced in regard to the changes in the blood. He says, "In the blood of the puerperal female, greatly modified as it is in the normal states of pregnancy and delivery, and containing as it does after parturition, the effete elements of the involuntary or disintegrating uterus; and the materials for the new lacteal secretion—ferments and agents may possibly exist which are more apt to develop special morbid poisons out of the retained renal excretions than happens in other states of the system. But I repeat, the whole subject is yet quite dark and conjectural and will remain so till pathological chemistry is able to cast some light upon it."

Many have assigned as the cause, the excess and decomposition of urea in the blood, but experiments have demonstrated that various amounts of urea injected into the circulatory system will not produce eclampsia. Knowing as we do that albuminuria exists in a large per centage, if not all cases of puerperal eclampsia, it behooves us when we find it present during pregnancy to use every means in our power to eradicate it.

Frequently patients that exhibit symptoms of albuminuria for some time previous to the commencement of labor, under proper treatment, pass safely through that trying ordeal without any serious complication, but as is well known, the nervous system at such a time is in a very highly

sensitive condition, and anything which causes increased excitement or irritability of the nervous centers, such as Toxæmia, is very liable to produce convulsions.

The symptoms of Uræmic poisoning, in the pregnant female, are the premonitory symptoms of Puerperal Eclampsia, and although one or more may be absent, yet by careful observation a diagnosis is comparitively easy. The following case which came under my charge a few days since, I consider a typical one in regard to the premonitory symptoms as exhibited during the month previous to confinement.

On Thursday, April 8th, I was called rather hastily abont 2 p.m., to see Mrs. H———, who, according to the husband's statement, had fainted. On the way to the house I made a few inquiries in regard to the case and ascertained that she was pregnant and had completed her time as nearly as they could estimate it. I was also informed that she had suffered from Albuminuria of late and that in the morning of the above date she was attacked with a terrific frontal headache and a few labor pains. The physician engaged was called and prescribed Potassii Bromidi et Chloral Hydrate, but the headache continued as did also the labor pains, until at 2 p.m. she was attacked with a convulsion.

I found her on my arrival just recovering from it, and again sent for the physician engaged. He being absent from home, Dr. Willoughby, a near neighbor was called in consultation.

The patient continued quiet for some time, and an examination showed that the os uteri was dilated to the size of a silver dollar. Potassii Bromidi gr. xx, was given and an enemata to move the bowels. Labor advanced very slowly, but the headache was greatly relieved after the first dose of Potassii Bromidi. At 4 p.m. she was seized with a second convulsion, after which the dose of Pot. Brom. was doubled. At 6 p.m. a third took place. After the paroxysm the os uteri was found to be dilated sufficiently large to admit of the application of the forceps. The patient was placed under the influence of chloroform and delivery accomplished. Contraction of the uterus was not very marked and a teaspoonful of Fl. Ext. Ergot was given.

At 7.30 p.m. she was seized with a fourth convulsion, after which twenty drops of Tinct. Opii was added to each dose of Potassii Bromidi. Dr. W—— retired at 8 p.m. and I remained a few hours longer. There was no return of the paroxysms and the patient passed a very comfortable night.

I called early on the following morning and found her perfectly conscious, and quite surprised to see me. On inquiry she stated that she remembered nothing whatever from about eight o'clock the morning previous, when she asked her husband to go after the doctor as her head

ached so badly. I put her upon Opii gr. one and camphor gr. ii, every 4 hours, which was discontinued the following day.

I afterwards obtained the following history: This was her fourth pregnancy, previous labors all very easy, and had never had any indication of Albuminuria before. The attending physician had made frequent examinations of the urine and found albumen present, but as he afterwards informed me the last examination revealed the fact that it had entirely disappeared. Previous to confinement, for two or three weeks, she had marked loss of sight at times and also severe frontal headache. There had been slight œdema of the face and upper extremities, and there was no indication of any accumulation of feces. An examination of the urine twenty-four hours after delivery, showed no albumen, and from that time to the tenth day, when she was discharged, there was not one unfavorable symptom. In the American Journal of Obstetrics for October, 1879, Derby cites a case where the convulsions occurred nine days previous to confinement, and they yielded to Pot. Brom. and Hyd. Chloral, so that labor was completed without any return, and mother and child both saved.

Pilocarpine has been highly recommended by some, but its success is doubtful. Two years since I was called to see a patient, pregnant eight months, suffering from marked Anasarca and all the symptoms of acute Albuminaria. Jaborandi acted like a charm, and I delivered her of twins at full period; labor very easy.

In the Medical Record of March 1st, 1879, Prof. Fordyce Barker reports the results of Pilocarpine in six cases of Puerperal Albuminuria and convulsions. One recovery and five deaths. Dr. Whelen takes Prof. Barker to task for the above in the American Journal of Obstetrics for January 1880, and cites two cases of recovery from the use of Pilocarpine, as he ascribes it, but Potassii Bromidi et Chloral Hydrate, was given, and Phlebotomy resorted to in the first case, and in the second the Convulsions did not cease until Phlebotomy was resorted to, which in my opinion does not prove much in favor of Pilocarpine. Of late the most encouraging reports come from the use of large doses of Potassii Bromidi with or without Chloral Hydrate, and in plethoric patients, Phlebotomy.

If as many believe, Phlebotomy, Pot. Bromidi and rapid delivery constitute a specific for Puerperal Eclampsia, then certainly the profession of the nineteenth century have not labored in vain against that most unwelcome visitor to the lying-in chamber.

Medical Department.

PROF. S. N. BRAYTON, M.D., EDITOR.

CHOLERA INFANTUM.

BY THE EDITOR.

The subject of Cholera Infantum has been written and rewritten upon until it would naturally be supposed that it has been entirely exhausted. Certain it is that the *subjects* are exhausted in a great many cases, and die when they should have lived. It is of the utmost importance to study well the history of the case and find out the *cause* of the disease before we undertake to make a prescription or give any opinion or advice. When the practitioner has hovered over the little patient and asked all manner of questions which may appear wise or otherwise, according to the intelligence of the family, he will almost invariably find that the cause of all the suffering, all the emaciation of the child, and all the sleepless nights and heart pangs of the mother are caused from weakness of the childs stomach, produced by introducing things into it, which it is unable to digest, or from too frequent alimentation. Here lies the secret of Cholera Infantum in ninety-nine cases out of a hundred, and by overlooking *this* important point the attending physician has been obliged to write the certificate of death,—and he should be obliged to subjoin "and by ignorance of the doctor." It is contended by the writer, that no physician should lose a case of Cholera Infantum, unless there is a scrofulous tendency where marasmus may immediately supervene, or where grave complications set in, which are of such a violent character that medicines and proper care will be of no avail. In this disease we will almost always find in the discharges *undigested food*, and if they are not of a green or greenish character at first, will turn green after exposure to the air for a few minutes or hours. The green appearance usually denotes an acid condition, and if it does not disappear after a few doses of Chamomilla, *will* by using a weak solution of Bicarb Sodæ. This indigestion certainly *denotes* something, and one of two things generally. Either the child is fed too often and thereby not giving the stomach sufficient rest between alimentation, causing the stomach to tire out, as any muscle would after over exertion, or any *gland* for that matter, or the food is not of a proper kind and the gastric juice is not strong enough to disintegrate it and fit it for the lacteal absorption. If the food is not digested, it acts as an irritant, almost always in young children and produces the same effects as a cathartic. If it

is digested they will rarely have Cholera Infantum or even Diarrhœa. It cannot be digested if the stomach is exhausted or if the food is not adapted to the conditions of the digestive apparatus. The first thing that should be looked after is the selection of the proper kinds of food and the right quantity. If one cow's milk does not agree with the child, another should be used and so on until one can be found that will digest easily. There is more in this than any one would imagine, if they have not had the experience of the writer. The next thing most important is to give the proper quantity. Children are not so apt to vomit cows milk when the stomach has been overloaded as in nursing, consequently it passes into the intestines and is another cause of Diarrhœa or Cholera Infantum. If the stomach is overloaded with anything but mothers milk, it is apt to weaken the digestion so much that it is discouraged, as it were, and digests but very little of its contents. Therefore *overfeeding*, *too frequent feeding* and *improper feeding* are the causes of almost all the cases of Cholera Infantum. 1st. Overfeeding probably stands first, because the mother or nurse is in the habit of letting the "little dear thing have all it wants, because they love it so, and must not starve their darling one,"—all the time *starving* it *to death* by crowding the stomach so full that it can digest nothing. Too frequent feeding stands next. A child from its birth until it reaches the age of five or six months, should not be fed oftener than once in two hours, nor more than two tablespoonsful of diluted milk (with a little cane sugar in it,) to half an ordinary nursing bottle, according to age. After that the milk should be increased in strength and quantity, and the time changed to *three* hours. *No oftener*. If the above rules are followed, and a case should occur, it will be undoubtedly from *improper* food. Many children die from this cause. The milk should always be from a young cow, and even then there may be some defect which we cannot fathom and which will be remedied on changing. Sometimes the writer has been obliged to make a second and even a third change of cows, before THE one had been obtained, when the child's bowels became regular and natural. When the injesta is seen in the evacuations in a curdled form, it always indicates a weakness of the stomach, and by using a little calves rennet, (which can be obtained from any butcher,) given after feeding, will almost always change the character at once. A piece about four inches square put in a tea-cup half full of boiling water, after the salt is all brushed off, is about the proper strength. A teaspoonful or two after partaking of the food will often correct the derangement without any other treatment. There are undoubtedly some who are unable to take milk when corn starch or some prepared food will nourish the child very satisfactorily, and sometimes a little Bicarb of Sodæ added to the milk will have a beneficial effect.

The bottles should always be *kept clean*, the food should not be allowed

to stand in them a minute after nursing, but the bottles should be thoroughly washed and scalded, then kept in a solution of Bicarb Sodæ until the time for using them again. The tube, the nipple and all should undergo the same process. Inattention to these little points has caused the death of many little ones. Sour old food will kill almost every time.

But little medicine is required if the above advice is followed. It will cure and it will prevent. It may be unnecessary to refer to the medications as many have their favorites, and all may be good. They should be given according to the indications: Arsenicum, Chamomilla, Mercurius, Carbo. Veg., Veratrum V. or Album, Colocynthis, &c. The Arsenicum should be used if there is much vomiting and thirst. Chamomilla, if the discharges are green and painful. Mercurius, if watery and painless. V. V. 1st, if there seems to be constant pain and a tendency to convulsions. This last remedy is one of the best, if not the best to prevent convulsions from any cause in children and frequently in older persons. Podophyllum, 1st, is also very beneficial when there is painless evacuations. Above all, if we attend to the digestive functions our results will be most certainly successful.

Selection.

METHODS OF CURE.

An Extract from a Therapeutical Inquiry into Rational Medicine.

BY S. W. WETMORE, M. D.

Some old writer (the name escapes me,) said there were but three principles or methods, to guide the administration of remedies in the cure of diseases. First, to give a medicine capable of causing in the healthy a diseased condition, the *opposite* of that of the disease to be cured. Second, to give a medicine, capable of producing in the healthy body, a morbid state *different* from that of the disease to be cured. Third, to give a medicine capable of causing in the healthy, a morbid condition *similar* to that presented by the disease to be cured.

Let us briefly analyze these methods, and see which of the three, or how much each, can claim for *rational* medicine. It is so difficult a matter to

classify diseases, and find their opponents, that the first method, whose maxim must be *contraria contrariis curantur*, seems to be very irrational.

A morbid condition opposed to constipation, would be diarrhœa; the opposite to incontinence of urine, would be retention; or a diminished secretion of the kidneys, liver, or any of the secernents, would only be opposed by an excessive secretion, etc., etc. Each and every one of these are simply *symptoms* of disease, and not disease consummated.

Who can tell us what the *morbid* condition is, that is *opposite* to typhoid, typhus, or intermittent fever; to variola, varicella, rubeola, scarlatina, or to pneumonia, phthisis, or any other disease?

The only answer any one can give is, that the opposite to disease is health, but health is not a *morbid* condition, hence, the proposition to cure disease by drugs, which if given in health will produce morbid conditions *opposite* to them, seems preposterous, and of but little utility, excepting in combating certain symptoms, such as excessive heat by the application of cold, and vice versa.

In the second proposition however, we find much more rationality in the method of treating disease, by producing *different* morbid conditions. Experience teaches us, that diseases are not unfrequently cured, *mutatis mutandis*, by revulsives, counter-irritants, depletives, alteratives and astringents. Bleeding and powerful cathartics, in *puerperal convulsions*, are examples where great debility, exhaustion, and complete prostration, would be the morbid condition produced *different* from that relieved.

Reasoning from cause to effect, remedial agents have been selected which would counteract the cause, and others administered to prohibit the effect. This mode then, properly belongs to the law of *contraria contrariis*, and is not without reason, and being more or less rational, we must differ from Virchow, who says "we have no rational therapeutics." And yet if we were to ask ourselves the *rationale* of producing a disease in a previously healthy organ, to relieve one in a remote organ, we would be at a loss to answer satisfactorily. At times it certainly adds fuel to the fire, and reminds us of the old lady, spoken of by Dr. Sharp, who exclaimed, when it was proposed to her to have an issue introduced behind the knee, for an ulcer on the ankle, "then I shall have two sores instead of one."

After having very carefully,and unbiasedly investigated this old method of cure, we are inclined to the belief, that it is not the difference, but the similarities in its disease-producing properties which bring about the remedial action. An example or two will suffice to elucidate the point. Take an ordinary case of inflammation of the conjunctiva, or of the fauces and tonsils. What is the pathological condition? We all know that it is a hyperœmia of the parts, with motion partially increased and partly diminished; or suppose we see them when *congestion* exists, then we have a

hyperœmia of the parts with motion of the blood *diminished*. For the relief of which in either case, we have been accustomed to prescribe Nitrate of Silver, Sulphate of Zinc or Acetate of Lead, as a collyria, application with a brush, or gargle, as the case may be.

What is our therapeutics? opposite? no! different? no! it is certainly more of a *similarity* than a difference. Will not either of these drugs in moderately weak solutions, applied to these mucous membranes produce a morbid condition, similar to the one delineated? Most certainly the answer is in the affirmative.

Notwithstanding the long and unsettled disputation between physiologists, concerning the physiological action of medicines, we are inclined to the idea, that the drugs under consideration produce their remedial effects on the pathological conditions referred to, by stimulating the vaso-motor nerves, to contract the arterioles, and thus empty the vessels.

The question naturally arises, what then is the physiological action of the same drugs, on the same tissues in health, producing a similar pathological condition? It has already been shown that drugs produce different effects, when administered in different degrees of strength. A solution of nitrate of silver, of moderate strength, applied to a healthy conjunctiva, would produce a determination of blood to the part, by producing at least *pro tempore* paralysis of the lenticular ganglion.

Dupay produced congestion of the conjunctiva, increase of temperature in the ear, and an abundant secretion of sweat upon one side and neck of a horse, by paralysing the superior cervical sympathetic ganglion which communicates freely with the opthalmic or lenticular.

The third method of treating diseases, is that which has for its guide the law of similars. Sir John Herschel says "the discovery of natural truth has been remarkably slow. When the discovery is a single fact, many years commonly elapse, before the next fact in connection with it is brought to light. When it is more of a general kind, and partakes of the nature of a law, it more commonly suggests other truths and valuable circumstances, in connection with it, by which means, a more rapid progress is, for a time, made." This, we have already seen, in the time that has elapsed between the introduction of the telegraph by Morse, and that of the telephone by Edison. Many years have passed, since Hahnemann advanced his idea of the homœopathic action of natural diseases. He divides natural diseases into two classes, the one consisting of such as are *dissimilar*, and the other of such as are *similar* to each other. And he remarks, "that no previously existing disease can be cured, even by nature herself, by the accession of a new *dissimilar* disease, be it ever so strong."

"Totally different, however, is the result when *two similar diseases* meet together in the organism. That is to say when to the disease already pre-

sent, a stronger, similar one is added. In such cases, we see how a cure can be effected by the operations of nature, and we get a lesson as to how we ought to cure."

Long before I was aware that this declaration had been made, I had observed that diseases had not unfrequently disappeared on the accession of others. Discerning more closely however, since becoming familiar with the above statement, I find that the morbid condition which yields, is similar in its nature to the one which acts as a remedial agent. For instance: I have frequently vaccinated several days after the patient had been exposed to small pox, and had reason to believe the disease was incubating and that the blood was charged with poison, and had the gratification of seeing one or more well-developed cow pox pustules, and not a vestige of that dreaded so much.

Still farther: I have vaccinated, when the premonitory symptoms of small pox were already present, and had reason to believe that the disease was very materially modified, the febrile stage abbreviated, the pustules limited in their extent, and all the unpleasant symptoms mitigated, even though the vaccinating pustule never appeared, the prophylactic was evidently absorbed, and acted in a degree as a remedial agent. Doubtless others have met with like results.

Who has not seen *varicella* prohibited from spreading through a household of children, or a foundling asylum by vaccinating? Not that cow pox is a prophylactic to chicken pox, but that the two poisons do not prevail at the same time, in the same individual.

I have in my mind two families, where these facts were evinced. In one case, the child vaccinated had varicella three months after the others had recovered, and so far as known, without any recent exposure. In the other family, one year intervened, and then after an exposure.

Question.—In the first case, did the cow pox virus keep in abeyance the chicken pox virus for a period of three months? Evidently it must have had some influence. Every dermatologist has doubtless observed the disappearance of *eczema pudendi* and *eczema manum et pedum*, on the accession of *impetigo*, or *syphilitic ecthyma*. Several cases of the former have come under my observation. The question may perhaps be asked, did not the remedies used for the cure of the syphilitic trouble, cure both?

Perhaps the following case may be of some utility and assist us in answering the question. About eighteen months since, J. K., a drygoods clerk, aged 47, presented himself for treatment, with a very severe *prurigo*. He stated, that "for several years previous to its appearance, he had been suffering from a very unpleasant, scaly condition of the skin, and described *pityriasis*—for which he of late had done nothing, but on the appearance of his present malady, several months before, it had entirely disappeared."

Suffice to say, that some two months after, he was dismissed cured, and not a vestige of either has since returned.

Many like cases of disease of the skin might be mentioned, but a reference to those involving some internal organs may be more interesting.

Three well marked cases of insanity, of years standing, have come to my knowledge, whose sanity was restored to them after having recovered from acute *meningitis* or *cerebritis*. One of these cases came under my own professional care, and I can vouch for a complete recovery, after a long, tedious course of *cerebro-spinal meningitis*.

I think it is Pepper who says, "in the majority of cases of insanity, the pathological condition is a chronic inflammation of the membranes of the brain." If so, we can the more readily see how an acute attack might prove remedial, if there be any truth in the law under consideration. What surgeon of any experience, has not repeatedly seen cases of chronic urethritis—gleet—cured readily by an acute attack of *gonorrhœa*? The same may be said of vaginitis, endo-metritis, or chronic diarrhœa, all yielding to an acute inflammation, idiopathic or acquired.

Paul Du Chaillu, the great gorilla hunter, tells us that the monkey, ape, baboon, and gorilla feed their young when sick, certain roots, berries, fruits and plants known to be deadly poisons in health, and rejected except when ill. Zoologists tell us, that certain animals select certain plants, shrubs and grasses, and eat them only when sick. Among them are mentioned the jackal, wolf and tiger. And who is not familiar with the same intelligence shown by our domestic dog, and even by pussy on the "nip."

If the all-wise Creator cares for the lower orders of mammalia, and directs them through instinct when ill, to eat that, which if taken in health would make them sick, is it strange if those "made after his own image" should receive at least as great provision for their welfare and comfort? It is more strange that some men insist on being lower than the monkey.

Enough has been said, I trust, to satisfy any reasonable, thinking mind, that nature sometimes cures her own maladies, by introducing similar and stronger, morbid conditions into the human economy, thus giving us the key by which we can most satisfactorily unlock the portals of health.

Legal Department.

TRACY C. BECKER, A. B., EDITOR.

Carpenter vs. Blake.

AN IMPORTANT DECISION BY THE HIGHEST COURT OF NEW YORK STATE FOR AN ACTION FOR MAL-PRACTICE.

BY THE EDITOR.

(CONCLUDED.)

The misleading of the plaintiff in reference to the actual state and condition of the arm certainly tended to establish the cause of action, and it would have been improper to exclude the effect of it from the consideration of the jury in establishing a case.

It should not be overlooked that upon exception being taken to the charge in this respect, the judge qualified and restricted what he had previously said so as to hold in effect that the plaintiff could not be misled unless she understood that a surgeon was no longer required.

Nor was there any error in refusing to instruct the jury that the defendant was not responsible for anything done or omitted after he was dismissed. The charge of the judge sufficiently and fully covered this branch of the case. The judge among other things charged that if the defendant was dismissed with the plaintiff's assent she had no right to hold him responsible for any subsequent results to the arm, and that if they found he deceived and misled her, and that the arm was not then in good condition that he should be held responsible for the injury which occurred after that time. This was as favorable to the defendant as was authorized by the facts. Suppose the defendant had misled the plaintiff so that she failed to employ or to call in the aid of another surgeon for that reason, could it be claimed that the defendant was not responsible for the omission caused by his failure to give the necessary information, and for leaving the plaintiff in ignorance of the actual state of the case? Clearly not, for the plaintiff had a right to assume that the defendant had performed his work in a skillful manner, and if there was any omission it was occasioned by the fault of the defendant and not for the plaintiff.

The request to charge that if the plaintiff was guilty of any negligence in the management of the arm through the fault of her attending surgeon, after the defendant ceased to have charge of the case, or without such

fault of the surgeon and such negligence contributed in any material degree to produce the present bad condition of the arm the defendant was not responsible, was properly refused. To this request the judge declined to charge except as already charged.

There was testimony that it was quite obvious that immediately after the defendant had given up his charge of the plaintiff's case, the bones were not properly set or that they had become displaced after the dislocation was reduced. This was one of the questions controverted upon the trial, but there was no direct evidence of negligence after the plaintiff had employed another on the part of either the plaintiff or of her surgeon. Upon this ground the refusal to charge as requested can be upheld.

But even if it were otherwise the proposition contained in the request was too broad and not authorized by the facts. The evidence of the plaintiff established that the alleged mal-practice occurred while the defendant was acting as her surgeon and the cause of action had then accrued.

The request would have justified the jury, if there had been any negligence after the defendant had relinquished his charge, in finding a verdict in favor of the defendant, even if the injury had been caused by the negligence or unskillful practice of the defendant prior to this time.

The cause of action which had previously accrued could not thus be discharged by subsequent negligence of the plaintiff or her surgeon. The most which could be claimed on account of any subsequent negligence would be that it should mitigate the amount of the plaintiff's damages.

It is also insisted that the request to charge that if the defendant gave advice to the plaintiff after his discharge without being employed by her and entitled to compensation he was not responsible should have been charged without the qualification, "and did not mis-lead or deceive her" added by the judge. We think that there was no error in this respect. The defendant had been employed as the plaintiff's surgeon, and unfortunately by reason of his want of skill or for some other cause she had sustained serious injury. The proof tended to show that it was attributable to mal-practice on his part, and if in interviews after he had been discharged, he gave advice which was wrong and which tended to mislead and deceive her I think he was responsible for such advice. He thereby assumed to act on her behalf and no valid reason exists why he should not be liable for the act. But the request was too broad as it might, if charged, have left the jury to infer that the defendant was entirely discharged from liability, even for the time during which he was acting as surgeon.

No other question urged requires examination. The case has been carefully considered in the various stages in which it has been presented to the courts, and we think that the judgement was right, and no error was committed which demands a new trial.

The judgment should therefore be affirmed.

All concur.

Judgment affirmed.

[The comments of the Editor upon this decision will be reserved for the next issue of the Investigator.]

Editorial Department.

Our April number was fraught with many of the unpleasant, and some of the unavoidable occurrences too common in journalism

1st. Our *Association* having entered into a copartnership with the *Ledger Steam Printing Co.*, the arrangements were not consummated until after the 10th ult.,

2nd. A change of printers, of type, of compositors, and of time, and last but not least to us, a very severe illness in our own family requiring our constant care, are our good and valid reasons for the many errors in our last issue. The editorial proof sheet was never submitted to the compositor after correction, but one read by another party accidentally substituted; hence its uninviting appearance. We hope and trust the like may never occur again. Still we do not expect our professional and editorial life-stream to glide along without meeting some barrier.

Obstacles are projecting from either shore, rocks and crags, drift wood and waste, shoals and quick sand, are to be encountered. Those of a professional nature we rather enjoy, for there is nothing like opposition to educe energy, research and a disposition to emulate. He whose sunshine knows no shadow, or whose joy never knew grief is illy fitted to combat the perplexities of journalism, or the position of teacher, where opposing isms, pathies and parties are sure to confront him.

If it be true that our greatest, most influential, and most learned men in Church and State, Commerce and Science are "self-made," it appears obvious they have been tutored in both sunshine and shade, have met the perplexities of life, have buffeted the billows of adversity, and have wrestled and conquered the strong arm of opposition.

How rarely we hear of the youthful millionaire becoming a man of science or distinguished for his States-manship or noted for his ability on the rostrum or in the pulpit.

Our observation and experience impels us to recognize opposition and strife as great necessities and they must needs enter into the curriculum and education of *manhood.*

A man is what his education has made him, is what his observation and experience have taught him, and therefore it is not surprising that our individual *menu* cannot be relished by all, for our literary pabulum has reared us in different tastes, to different ideas and unlike expressions.

We have charity for those who seemingly make themselves targets for ridicule, and objects of professional pity, for promulgating their irrational education. Evidently they were cultured in a non-diverging rut of a "close-communion" order. A one idea system and a distinctive dogma. We forgive them for their captious and inimical disposition towards us, for "they are joined to their idols," and know not what they do.

There is yet another class whose criticisms are so clouded with ambiguity that we hardly know whether to credit them with irony or ignorance. For example we copy from the Cincinnati Medical Advance for April, the following:

"Oh Ho! now we have it. The law *Similia Similibus Curantur*, is simply a guide in the selection of the remedy, while the cure *per se* must necessarily be in accordance with the law of Contraries. This brilliant idea comes from the Buffalo "Investigator."

It is a jewel of a thought, for don't you see, it makes us happy all around. It should be bottled and labeled *soothing syrup*, and fed to persons of feeble minds."

If this is the first dose of the kind the author has ever taken, we do not wonder at his nomenclature and trust it will *soothe* his ardor to criticise that with which he seems not to be acquainted.

Meo periculo. We repeat, that a cure *per se* by a *small* dose is contrary to, and different from a *large* dose. By the physiological action of a large dose in health we are enabled to select the medicine in disease,—which is homœopathy—but the dose of the drug as a curative agent in disease must be *smaller* than that required to produce like symptoms in health. In other words "*the action of small doses of drugs is in the opposite direction to the action of large doses.*" The selection is *Homœopathic*, and the cure *Antipathic.*

We supposed that the above declaration was a conceded fact by all well informed homœopathic physicians, but *mirabile visu*, a leader in that school gives us the credit of being the author of "*this bridiant idea, this jeweled thought* soothing to feeble minds."

Dr. Sharp, in his essays on the action of medicines, and the law for the dose, etc., etc., page 731 says. "The law of *Similia Similibus Curantur* belongs to, or is dependent upon, the action of a certain range of *large* doses; while the law of *Contraria Contrariis Curantur* belongs to, or is dependent upon the action of a certain range of *small* doses." Page 732 "When a drug is prescribed as a remedy for a diseased organ, upon which it acts when taken in health, and for the kind of diseased action which in certain large doses it can produce in health, the dose must be small

enough to be within the range of an action in the *opposite* direction * * * the small dose action be it remembered is *always* as a matter of fact contrary to the large dose action; and claims to be the only legitimate heir to whom the maxim *Contraria* belongs."

I would refer the reader to the essays on *Antipathy and Antipraxy* by the same author; also to Dr. Dudgeon's lectures, and to the works of Drs. Hughes, Richardson, Kidd, Black, and our own countryman, Dr. Holcomb, as advocates of the old and well-worn theory that Homœopathy serves only as a guide in the selection of the remedy, while the selection of the dose and *modus operandi* of cure must necessarily be in accordance with the law of *contraries.*

How could it be otherwise? It must be antagonistic, opposed to, contrary and different from, or an *idem* would be established, and an aggravation would ensue, which is not unfrequently demonstrated by a larger dose than was intended. We are, however, no sticklers for pathies or parties, but for facts and truth wherever found. "A rose by any other name would smell as sweet."

While we believe that *similia* furnishes us the great key that most promptly opens the portals to health, we believe that *contraria* is a necessary lock-picker, and without the two combined no therapeutist can become a skilled operator.

With Galen's law of cure—Antipathy—alone, we have simply the *ars medica*, but with the addition of the law of *similia*, it is converted into the *science* of *medicine*. Homœopathy has done for therapeutics what electricity has done for telegraphy and the telephone, and like the latter, it is making rapid strides towards a perfect and true science.

The full fledged non-sectarian physician and surgeon, must have a liberal and most thorough knowledge of all systems and schools of medicine.

It is the proud aim of the INVESTIGATOR to zealously watch and inculcate the principles of rational medicine, as taught in the College of Physicians and Surgeons of Buffalo.

Selections.

TREATMENT OF CANCERS AND CANCROID ULCERS, AND GROWTHS NOT ADAPTED FOR REMOVAL BY THE KNIFE.

Stephen Smith, A.M., M.D., New York, in the *Medical Record* gives a very readable and practical clinical lecture upon this interesting subject. The patient before him was one suffering from a return of cancerous masses in the margins of the old cicatrix, which formed after the removal of a cancerous tumor from the breast, one year before. Her general health being good, no evidence of the involvement of the internal organs present. He said: "You will frequently be at a loss to decide as to the course of treatment to pursue in such cases. They are usually regarded as not amenable to any treatment, and are allowed to progress from bad to worse, until they terminate fatally. The results of such treatment are great personal discomfort, pain, misery and a lingering death. That such cases may often be greatly benefited by treatment there can be no doubt."

The treatment proposed in this case was the application of caustics, and according to his experience caustics judiciously selected and thoroughly and persistently applied, give the best results of any method of treatment yet practiced. In this case the agent selected was the anhydrous sulphate of zinc, the sulphate reduced by heat. Prof. Simpson, of Edinburgh, gave him the first knowledge of this agent as applied to these cases. The forms used on open surfaces are the powder simple, applied to the ulcer dry, a paste of zinc sulph. anh. oz, i (32.) glycerine oz i (4.) or an ointment zinc snlph. anh. oz. i (32.) axunge oz. ii (8.) In using the powder it should be applied over the whole surface in depth ⅛ inch or more. The pain is not severe, lasting about one hour. After it has remained 3 or 4 hours, the liquid portion should be absorbed by cotton and a hot poultice applied; five or six days will be required to remove the slough. If any diseased tissue remain after the slough is removed reapply as before, if a healthy surface remains apply simple dressings. Little or no danger exists from these applications over important parts, the local inflammatory action established tends to protect the underlying parts from injury. In treating the nodules or hardened masses, where covered by integument, these forms are not desirable. A paste made by mixing the zinc with acid sulph. is very energetic; apply with a stick or glass rod. To prevent pain, apply first a strong solution of acid carbolic, as an anæsthetic, after a few hours apply a poultice as before. The parts are usually

destroyed to about the depth of the superimposed layer, the slough is of a white color, exfoliates in five or six days and is without taint or odor, the local inflammatory action is generally slight and transient. Prof. Simpson sums up its advantages as follows: "1st. Its powerful escharotic action; 2d. The rapidity of its action; 3d. Its great simplicity and manageableness; 4th. Its facility of application; 5th. Its non-tendency to deliquesce or spread; 6th. Its perfect safety; 7th. Its efficacy."

Epithelial or cancroid ulcer of the cervix uteri under the application of the powder, exfoliates its surface, has its sanguineous and seropurulent discharges arrested, the parts heal temporarily if not permanently and the general condition of the patient improves.—*Toledo Med. and Surg. Journal.*

THE NECESSITY OF SLOW EVACUATION OF THE DISTENDED BLADDER.

BY J. W. S. GOULEY, M. D.

Why should you withdraw only a part of the urine from an over-distended bladder? Why slowly and gradually? Because experience has taught careful observers that when the contents of a largely distended cavity in the body are suddenly evacuated the consequences are usually hurtful. For instance, in tapping for ordinary abdominal dropsy, neglect during the operation to use compression with a proper bandage, or the too precipitate withdrawal of the serum, has been followed by the most untoward results, such as syncope, hemorrhage in the peritoneal cavity, and even fatal peritonitis. Profuse hemorrhage also sometimes follows the sudden emptying of large abscesses, of thyroid and other cysts, and of those long-neglected enormous hydroceles of the tunica vaginalis testis. The same almost always occurs when a greatly distended bladder (in an elderly man) is completely relieved of its contents with too much precipitation. Let me now give you what I conceive to be the correct explanation of such a hemorrhage in the bladder. So long as the bladder remains distended there is no bleeding, but as soon as the urine is drawn hemorrhage begins. The vesical parietes, from having been in a state of extreme tension, in an instant become flaccid; the capillaries of the mucous membrane, from having been greatly stretched and almost emptied, are suddenly gorged with blood, and being deprived of the hydraulic support of the urine which but a moment before braced them up, their delicate

walls, unable to resist the increased internal pressure exerted by the circulating blood, give way, and the blood oozes from thousands of little rents on the surface of the vesical mucous membrane. These vesical hemorrhages are often abundant, and have been known to last two and three weeks; but they very seldom prove fatal directly; that is, from the amount of blood lost. The danger lies mainly in the consecutive general cystitis, which cannot always be controlled. A septuagenarian suffering from prostatic hypertrophy died from this cause several years ago. The patient had acute retention of urine, with great distension of the bladder, which was suddenly emptied with the aid of a catheter introduced by his surgeon. Within a few hours the bladder was again distended; this time not with clear urine, but mainly with blood. Each subsequent catheterism brought a great amount of blood, and the old gentleman grew gradually worse, with symptoms of acute general cystitis, and died within ten days. * * *

A safe rule therefore for your guidance in the management of cases of acute retention of urine of forty-eight hours duration is never to draw off more than one-third of the contents of the bladder, and to do this very slowly by half closing the distal end of the catheter, so that the urine will flow in a very small stream. Having collected half a pint close the catheter for a quarter of an hour, then let another half pint flow, and so on, until the required quantity has been obtained. In two hours repeat the catheterism if the first has been easy—otherwise the catheter should be closed and left in for twenty-four hours—and remove again the same quantity very gradually, and at the expiration of another period of two hours you may completely empty the bladder, always slowly; and in this way you will have taken the necessary precaution to avoid both cystorrhagia and polyuria. Every three hours after the last catheterism the urine should be drawn off until the patient can pass it spontaneously; if he cannot do so, of course the catheter will have to be resorted to at such intervals as may be found necessary.—*Louisville Med. News.*

HYDROBROMIC ETHER IN SURGERY.

1. That hydrobromic ether is an anæsthetic which, with care, may be safely administered to man and animals.

2. That hydrobromic ether is more rapid in producing anæsthesia than even chloroform, and is eliminated, by respiration and the kidneys, more rapidly than any other of this class of agents.

3. That the heart and respiration are but very slightly affected, unless employed in excessive quantities.

4. Vomiting is more rare than with ether or chloroform.

5. That owing to its odor being more rapidly removed, it can be used with comfort in a private office or the patient's chamber; and as a rule, the odor is more agreeable than that of ordinary ether.

6 Hydrobromic ether not being inflammable, and producing its anæsthetic influence on the muscles of the throat, any operation can be performed on the mouth and throat with satisfaction to the surgeon and comfort to the patient.

7. In vivisections it acts more promptly than ether upon animals, requiring as a rule, only two minutes to bring a dog under its influence, and is not fatal, like chloroform.

How often was there nausea or vomiting during the use of hydrobromic ether? In one hundred cases there were twelve cases of slight nausea after the operation, and eight cases of vomiting during the operation, but always where the patient had partaken freely of food of a solid character just prior to the use of the anæsthetic.

Asphyxia.—This disagreeable and painful symptom was not noticed in any of the cases.

Fainting.—In no instance was there any evidence of fainting.

Hysterical Excitement.—This was noticed in some six cases, but soon passed away, leaving no bad symptoms.

Prostration.—In four cases was there some prostration, evinced by cold moisture on the hands and face, but of very short duration.

The rapidity with which the patients came under the anæsthetic influence of hydrobromic ether; ten cases in one minute and a half, twenty in two minutes, ten in two minutes and a half, forty in three minutes, ten in four minutes, ten in five minutes.

How long did it take to recover consciousness from the effects of the hydrobromic ether?

In fifty cases from two minutes to two minutes and a half; in thirty cases three minutes; and in twenty cases four and a half to five minutes. Struggling, coughing or gagging, which occurs so frequently during etherization was very rare under the anæsthetic influence of hydrobromic ether. This form of anæsthetic is not apt to produce headache. No giddiness attends the use of hydrobromic ether. Thus concluding the subject, he performed three experiments, viz., first, placing a pigeon under a glass frame of a little over a square foot in size, in which is a sponge saturated with the bromide of ethyl. It was seen that for some minutes the bird was not affected, but at about the *third* minute it seemed to lose the power of locomotion and gradually settled down into a state of quietude for a few seconds, when it appeared to be somewhat nauseated, ejecting a few

grains of corn, and then again settled into a quiet sleep. Thus it remained, the air being admitted to it freely, for about two and a half to three minutes, then suddenly flew around the room, entirely recovered. While the bird was in the glass a dog and rabbit were also placed under its influence by inhalation, taking about two minutes for the rabbit, but as the dog succeeded in obtaining a larger amount of air, it took a somewhat longer time. While under the influence there were slight tetanic movements of the extremities, and soon after removing the ether slight stertorous breathing, from which, in the space of three to four minutes the animal had entirely recovered consciousness, although it did not seem to be inclined to move. The rabbit was apparently dead, but had it been taken into fresh air, and antidotal remedies and artificial respiration applied, it might have recovered, but these not being tried, it succumbed. Upon making a post-mortem, the right side of the heart was found engorged with dark venous blood, the left side very much contracted and empty. The lungs were beautifully shown by inflation, and but very slightly congested at their base, not enough to have had any effect in causing death. The kidneys were also very much congested with venous blood. The brain was entirely free from blood, not even the puncta vasculosa being seen, but at the torcular Herophili was found a large drop of the same dark blood.—*Dr. Turnbull, Med. and Surg. Reporter.*

ANTAGONISM OF MEDICINES.

Dr. Robinson's report on advances in chemistry. etc., presented at the last meeting of the Medical Society of the State of Virginia, and incorporated in the recently published transactions of the Society in the Virginia Medical Monthly, gives these views on the antagonism of medicines. "No system yet introduced of studying therapeutics has promise of more satisfactory results than the investigation of drugs in their antagonistic relations to each other.

Fothergill hails the scheme with enthusiasm, and has written a most interesting essay of 157 pages, recounting, briefly, the results of the labors in that direction. He introduces this subject as the youngest born of the therapeutic family, and predicts that it will become in its manhood the most active and vigorous of the group.

The studies in this connection were begun with *belladonna* and *opium*, which, for several years, in a great measure, monopolized the general question. The brilliant results that have attended the investigation of these two drugs—especially the light thrown upon the former—are well

known to the profession generally. The talent and zeal of such workers as Fothergill, Ringer, Browne, Bennett, Leibrich, Frazier, Wood, Bartholow, and many others, both in Europe and America, are pursuing the same line of experiment with other drugs, and the most encouraging results reward their labors. Among the drugs that are more especially engaging attention at this time, may be mentioned calabar bean and nux vomica, nux vomica and chloral hydrate, bromine and opium, calabar bean and belladonna, belladonna and jaborandi, chloroform and nitrite of amyl, digitalis and aconite, digitalis and opium.

This system of investigation has already, though still in its infancy, contributed largely to our practical knowledge, not only in the domain of toxicology, but in ordinary practice, by the accurate therapeutical classification that these potent agents are receiving, which will lead to a bolder and more rational application of them in disease."

Under the head of Materia Medica in this same report, Dr. Robinson calls attention to the contributions to the list of materia medica within the last year or two. *Araroba*, or Goa powder as a remedy particularly for psoriasis. Its active principle is *crysophanic acid*. It has a considerable range of usefulness and is now well endorsed as valuable.

It will be interesting to remember that our common *yellow dock*—"rumex," that has enjoyed a certain amount of reputation among domestic remedies, as a remedy for cutaneous diseases, such as ring-worm, itch, etc., is found to be rich in this same crysophanic acid. *Thymol* obtained from oil of thyme, has become a popular antiseptic and disinfectant. It is one of the few new remedies that meet with approbation in the pages of the *National Dispensatory*, last edition. It has many advantages over carbolic acid. An ointment of it (30 grains to the ounce), is recommended as a substitute for the obnoxious tar ointment in all cases where the latter might be efficacious.

Ethylates of Sodium and Potassium, recommended by Benj. Richardson, of London, appear to be valuable caustic agents. In the year 1870, Dr. Richardson, at a meeting of the Medical Society of London, read a paper on this subject, and calls attention again to the subject in the *London Lancet*, (American edition), July, 1879.

Sodium Alcohol, or Sodium Ethylate is a most convenient caustic. Laid on dry parts of the body, it is comparatively inert; but so soon as the parts to which it may be applied, give up a little moisture, its caustic action can be observed. Its action can be regulated within any limit, and when too severe can be checked by a few drops of chloroform, which decompose it into an inert chloride salt and an ether. Dr. Richardson finds in his practice the best success in these forms of disease, viz: cutaneous nævus, lupus, and malignant ulcer.

Eserine is one of the alkaloids of the calabar bean. It is most commonly used in the form of a neutral salt—the *sulphate of eserine.*

It is a *myotic*, and its local effects are antagonistic to atropine and duboisine.

Pilocarpin is the active principle of *jaborandi.* Its two salts—the *muriate* and *nitrate* are both used, but more especially the former. The action of this drug has been so freely reviewed of late that it may be passed with the mere allusion.

SPEEDY CURE OF NASAL POLYPI.

BY S. CARO, M.D.

DEAR SIR,—The painless method of removing nasal polypi, never before made public by the originator, is an apology for taking a small space of your valuable journal.

Mr. G. M———, æt. 60, ten years ago applied to me for relief from a soft polypus in the left nostril. I proposed evulsion; but not liking the proposition, he left, and I never heard of him until last May, when he returned with another polypus in the same nostril. I advised evulsion once more; he declined again and desired me to cure him the same way as did Dr. G. Ceccarini the first time (ten years ago.) On inquiry, Dr. C. kindly answered: "The medicine which I use for removing nasal polypi is four or five drops of pure acetic acid injected with an hypodermic syringe within the body of the polypus once only, very seldom twice; the polypus generally drops off within three or five days without discomfort or pain. Disinfecting lotion will correct the offensive odor." With this information, on the 12th of August, in the presence of my friend Dr. J. L. Little, I injected the polypus with six drops of chemically pure acetic acid, and instantly we saw the discoloration of it from red to white. Business preventing him from returning, I could not observe the daily progress; but when he called on September 2nd, he had only a small portion of it yet adhering to the middle turbinated bone, the other having dropped off the fourth day after the injection; this remaining portion was injected with four drops of the same acid, and on the third day dropped off, leaving his nose clear, without sore or a vestige of it. Neither of the two operations were followed by any unpleasant symptoms, save slight smarting from the pricking by the needle when the acid was injected. The offensive odor arising from the decaying mass was corrected by a weak carbolized wash. The long interval from the destruction of the first, and the appearance of the second—ten years between—precludes the possibility of this last being a portion of the first, but a new one.—*Med. Record.*

News and Miscellany.

A NEW ERA IN MEDICINE—SKIM-MILK TO THE FRONT AS A CURATIVE.

BY R. C. W., SYRACUSE.

The discussions and investigations that are being carried on in some of our medical societies for the benefit of the sick and afflicted, are not known to the busy outside world, which, sooner or later, receives the good resulting from philosophic study and research. The manner in which members of the medical fraternity have thought, pondered, pored, and sweat over that subtle agent, skim-milk, will not be known and appreciated until some of the facts are placed before the public, or some of the wonderful cures effected by it get to the ears of the people. It is only just and fair that the heroes who have risked their lives by submitting to the dangerous experiment of taking doses of highly attenuated milk, skimmed and shaken, as well as those who conceived and, for human good, brought out the sublime truths connected with the medicinal properties of skim-milk, should receive public recognition and honor for their sacrifice and labor.

Since the time of the immortal Hahnemann, there has not been a remedy proven, or a discovery made, that points more clearly to the advance of science, than the wonderful properties shown to be possessed by skim-milk, and the profession has a right to rejoice over the triumphs of the great discovery; even the cows could not be blamed for putting on airs and prancing about with more than ordinary self-complacency, having ascertained the magnitude of their usefulness and the important part they are destined to play in the future for the good of mankind. It is not improbable that at some day not far distant these innocent creatures may occupy conspicuous positions in the profession that is now graced by trusting and confiding calves.

The Onondaga County Society, having devoted so much time to the study and investigation of this potent agent, should give the masses the advantage of their sage-like wisdom; by so doing, thousands might be benefitted and blessed. Some may think lightly of the therapeutic action of the article in question; such do not comprehend the amount of labor, faith and observation that is required to obtain medical power from skim-milk; for the philosopher who wins the prize is obliged, in the midst of this busy world, to sit down armed with mental microscopes of the greatest power, and faith that only knows victory and stay until he gathers up all the mysterious facts connected with this heretofore unknown agent. The coarse, crude and stupid can easily ascertain the medicinal effects of castor

oil and turpentine, but when the hidden powers of milk are to be unravelled, it requires the learned, refined, cultivated, credulous, trusting and almost angelic nature to carry to a practical point such delicate tests. The naked eye can see trees bending in the storm, but it demands a more exalted vision to gaze with satisfaction upon the wind that "bloweth where it listeth."

Knowing, as I do, that the homœopathic law is a fact that cannot be denied, I will venture to give to the public a single hint that may solve one of the great mysteries of the present age.

One of our most learned local physicians has discovered that the 200th potency of skim-milk will cure diseases of a certain character, which are peculiar to women. And it accordingly follows that the same trouble will be produced by the article; therefore, beyond all doubt, the great reason why women in this age suffer so much, arises from the free use of milk purchased from those who make butter to sell—a thing that was never known or practiced by our honored ancestors, and an outrage that should be corrected without delay. Oh! ye milk vendors, behold what a duty you owe to our wives and daughters!

To those who never stop to think, it may appear strange that milk, largely diluted and well shaken, will produce results never known to follow the unrestricted use of the substance when taken in its natural condition! The uneducated and illiterate cannot understand the doctrine that a part is greater than the whole of a thing; but such is a truth that can be demonstrated by any well regulated mind that has been educated in the wonders of medical science; the day will come when the multitude will know these things for themselves, and the fellow who eats four or five pounds of beef a day, who grows pompous and becomes an Alderman, will stand aside for he who only smells of it and gradually comes down to his fighing weight or more, while both will, in the end, give way to him who only looks at it and flies to the timid *bos* 200th, because it *hooks when mad!*

One gentleman assures us that this new remedy will produce and cure sick headache; but this can be accounted for on the ground that the cow had the horn distemper! He says it produces cold finger-tips, and in the above named disorder the horns feel like ice. He says it has great coldness when near the fire, which proves the brute was obstinate and contrary.

In order to obtain the exact effects of skim-milk of the 200th dilution, the utmost care should be taken; the milk should be obtained from a cow of some soft, mild color, say, dove; she should be a cow of good habits and actuated by good motives. She should be kept perfectly still during the entire process of secreting the milk, and so avoid shaking it, which imparts new power to it with every motion. It would be a good plan to

get a cow somewhere near Lake Superior, if the two hundredth dilution is to be made, for this State has control of most of the lakes in this region, and they would not allow the water to be used, even for this important purpose, on account of interfering with navigation. Besides, there is not enough of it to procure a dilution which would demonstrate the power of the remedy, or dilute it to the curative point.

It has also been suggested that the cow be suspended by the two horns and her caudal appendage, and while in that condition and has been quiet for a proper length of time, the milk can be extracted; when cool it should be skimmed with a platinum dish, and each motion made in skimming should be from East to West, so as to be certain of the electrical condition of the fluid. In this way a dilution can be obtained that the profession can rely upon.

To be serious, do you wonder that people distrust men who are silly enough to embrace such foolish ideas, and visionary enough to attribute medicinal action to such an agent as skim-milk. No doubt your readers have concluded that I have drawn an imaginary picture, but it is true, absolutely true, that this very article has been made a matter of serious consideration and discussion in medical meetings in Syracuse, as the Secretary's records show, where men claim to be learned and intelligent, and in whose hands human beings trust their lives. It is time that the community learned something of the skim-milk doctors, and when they know the nonsense that passes current among them, they can trust themselves in their hands with more confidence and satisfaction.

A Powerful Disinfectant.—Chloride of lead is said to be the most powerful, safe, and economical deodorizer and disinfectant known. To prepare it for use on a small scale, for ordinary purposes, take half a drachm of the nitrate of lead, and dissolve it in one pint of hot water; dissolve two drachms of common salt in two gallons of water, and mix the solutions; this forms a solution of chloride of lead.

A cloth wet with this and hung up in a room filled with a fetid atmosphere, will sweeten it instantly; and the solution thrown into a water-closet, sink or drain, or wherever the sulphite of hydrogen and ammonium exists, or is generated, will produce the same effect. It is not carbonic acid, but the sulphite of hydrogen and ammonium, which are eliminated with the breath, and through the pores of the skin, that makes people who are exposed to such an atmosphere so depressed, and which, when highly concentrated, develop typhus poison.

Nitrate of lead is in dry crystals, and is sold, according to quantity, at eighteen to twenty-five cents a pound, which would make several hundred gallons of the solution of chloride of lead. And if, after testing, it proves to be as effective as represented, let it be published in every newspaper throughout the land.—*Physician and Pharmacist.*

We have had occasion to use the above in a very severe case of Gangrena Oris and have found it superior to anything and everything else combined that we have used. S. N. B.

We are using Reed & Carnrick's Maltine very extensively in our practice, and find it perfectly satisfactory. T heeffects are charming. It's compounds are equally good.

Reviews and Book Notices.

Analysis of the Urine. By NEUBAUER and VOGEL.

This is a guide to the *qualitative* and *quantitative*, Analysis designed for Physicians, Chemists and Pharmacists.

The preface is by Prof. Dr. R. Fresenius, and the work was *translated* from the seventh enlarged and revised German edition by Elbridge G. Cutter, M. D., of Harvard, and *revised* by Edward S. Wood, M. D.. Professor of Chemistry in the Medical School of Harvard University.

With these distinguished names on the title page of a large 8 vo. with over 550 pages the reader can well anticipate what we have to say after a careful perusal.

The authors have furnished the profession with one of the most useful and perfect works ever published in any language.

Prof. Carl Neubauer's chapters on the *Chemical* and *Microscopical* characteristics and properties of urinary constituents with the qualitative and quantitative chemical examination of normal and abnormal urine are exaustive and in many respects are entirely new to us.

Part second is devoted to the Semiology of human urine or the estimation and significance of the changes of this fluid, together with a guide to the examination of urinary calculi and other urinary concretions. By Prof. Julius Vogel, this part is replete with rich instructions and is arranged with special reference to the purposes of the practical Physician.

The work contains a large number of *plates* from Dr. Funke's Physiological Atlas, as well as Prof. Vogel's urinary color tables. These plates and tables simplify the study of urinary deposits, and the amount of blood and pus contained, etc., etc.

There is no work extant on this subject that will compare with Neubauer and Vogel's Analysis, published by Wm. Wood and Company, Boston.

S. W. W.

Headache by W. H. DAY, M. D., Physician to the Samaritan Hospital, for Women and Children. Linsay and Blakiston, Publishers, Phil., Pa, $2 00.

We have read this little work with care and have found it very comprehensible, instructive and interesting. Practitioners of every school should possess a copy as it will aid them greatly in understanding that most painful disorder,—Headache.

S. N. B.

A Practical Treatise on Nervous Exhaustion. (*Neurasthenia.*) Its Symptoms, Nature, Sequences and Treatment. By GEO. M. BEARD, M.D., of N. Y.

The subject of Nervous Exhaustion has probably been considered by Dr. Beard with more care and devotion than by any other practitioner in

this country. His work on *neurasthenia* gives evidence of careful study, and no little experience in the treatment of these very much neglected functional disorders.

In his introductory he gives the reasons why this study has been neglected. After which he takes up symptoms of nervous *exhaustion*, their Nature, and Diagnosis, Prognosis and Sequences, and then the treatment and Hygiene.

The whole subject is handled in a masterly manner. He maps out the course of study so clearly, giving hitherto obscure symptoms so plainly, and suggests remedial measures so rationally, that the reader at once becomes interested and is profited by its perusal.

Every physician should read this most interesting and practical work. Wm. Wood & Co. are the publishers. Ask your book dealer to send for this very valuable and almost indispensible work on the diseases incident to "brain fag." S. W. W.

Old School and New School Therapeutics. By FREDERICK F. MOORE, M. D., (Harv.) Formerly House Physician in Massachusetts General Hospital; Member of the Mass. Med. Society. Read before the Cambridge Society for Medical Improvement, Dec. 22, 1879.

For this very interesting *brochure* we are indebted to Prof. J. T. Talbot, M.D., of Boston. Not having had time to read this pamphlet of sixty pages as carefully as we would like, before commenting upon its merits, we can but call the attention to, and recommend all members of the profession who are desirous to obtain *truth*, wherever found, to procure and carefully read this able production on progressive medicine.

The author very kindly gives us the credit of being a pioneer in this rational therapeutical movement, by referring to a similar paper read before Erie County Medical Society in 1877. *Veritas Vincit.*

The North American Journal of Homœopathy for May, is on our table.

Prof. Lilienthal's criticism of the INVESTIGATOR, is very considerate indeed for one who advocates the *thirtieth and two hundredth potencies.*

His life long experience as a homœopathist only, does not enable him to look upon one side of the golden shield and judge of the briliancy, quality and character of the other. "Bigotry" is not a blinded zeal confined to any particular party, or sect, it is as common with one school as another, and quite as common with those old teachers fettered by a distinctive dogma as with those who are willing to acknowledge *truth* in all schools.

We are, however, much pleased with the *Journal* and welcome it as an exchange. It contains several very interesting and instructive articles, among which we may mention Paquelin's Thermo-Cautery and its application in disease; Splenic Senœmia in children; The Medical and Surgical diseases of women, and last but not least, Microscopic Observations and Examinations of Homœopathic Triturations of Metals by O. Buchmann, M. D.